

CLAIMS

What is claimed:

- 1 1. A vessel agitator assembly for a chemical analyzer, comprising:
2 a conveyor element which holds a plurality of vessels, said
3 conveyor element being moveable along a path; and
4 a vessel agitator positioned adjacent said conveyor element at a
5 location along said path where said plurality of vessels contact said vessel
6 agitator as said conveyor element moves along said path.
- 1 2. The vessel agitator assembly for a chemical analyzer as recited in claim
2 1 wherein said vessel agitator includes a plurality of troughs and
3 projections, whereby each of said plurality of vessels are caused to move in
4 direction generally perpendicular to said path by said plurality of troughs
5 and projections.
- 1 3. The vessel agitator assembly for a chemical analyzer as recited in claim
2 2, wherein vessel agitator is made from more than one component.
- 1 4. The vessel agitator assembly for a chemical analyzer as recited in claim
2 2, wherein distances between adjacent troughs in said vessel agitator is
3 variable.
- 1 5. The vessel agitator assembly for a chemical analyzer as recited in claim
2 2, wherein distances between adjacent projections in said vessel agitator is
3 variable.
- 1 6. The vessel agitator assembly for a chemical analyzer as recited in claim
2 2, wherein distances between adjacent troughs in said vessel agitator is
3 uniform.

- 1 7. The vessel agitator assembly for a chemical analyzer as recited in claim
2, wherein distances between adjacent projections in said vessel agitator is
3 uniform.

- 1 8. The vessel agitator assembly for a chemical analyzer as recited in claim
2, wherein a depth of troughs of said vessel agitator relative to said
3 conveyor is variable.

- 1 9. The vessel agitator assembly for a chemical analyzer as recited in claim
2, wherein a distance said projections project toward said vessel agitator
3 relative to said conveyor is variable.

- 1 10. The vessel agitator assembly for a chemical analyzer as recited in
2 claim 2, wherein a depth of troughs of said vessel agitator relative to said
3 conveyor is uniform.

- 1 11. The vessel agitator assembly for a chemical analyzer as recited in
2 claim 2, wherein said agitator assembly has a same number of bumps as a
3 number of vessel holders of said conveyor element.

- 1 12. The vessel agitator assembly for a chemical analyzer as recited in
2 claim 2, wherein a distance said projections project toward said vessel
3 agitator relative to said conveyor is uniform.

- 1 13. The vessel agitator assembly for a chemical analyzer as recited in
2 claim 1, wherein said vessel agitator is stationary.

- 1 14. The vessel agitator assembly for a chemical analyzer as recited in
2 claim 1, wherein a height of said vessel agitator relative to a height of said
3 conveyor is adjustable.

- 1 15. The vessel agitator assembly for a chemical analyzer as recited in
- 2 wherein said path has one or more turns.

- 1 16. The vessel agitator assembly for a chemical analyzer as recited in
- 2 claim 13, further comprising means for allowing the conveyor to follow a
- 3 path which is nonlinear.

- 1 17. The vessel agitator assembly for a chemical analyzer as recited in
- 2 claim 1, further comprising a housing, said conveyor and said vessel
- 3 agitator being positioned within said housing.

- 1 18. The vessel agitator assembly for a chemical analyzer as recited in
- 2 claim 16, wherein said vessel agitator is affixed to said housing.

- 1 19. The vessel agitator assembly for a chemical analyzer of claim 16,
- 2 wherein said housing is insulated.

- 1 20. The vessel agitator assembly for a chemical analyzer of claim 1,
- 2 wherein said chemical analyzer is an immunoassay analyzer.

- 1 21. The vessel agitator assembly for a chemical analyzer of claim 19,
- 2 wherein said conveyor and said vessel agitator are positioned within an
- 3 incubator in said immunoassay analyzer.

- 1 22. A method of passively agitating vessels in a chemical analyzer,
- 2 comprising the steps of:
 - 3 conveying one or more vessels held in a conveyor element along a
 - 4 path; and
 - 5 agitating said vessels with a vessel agitator positioned adjacent said
 - 6 conveyor element at a location along said path where said plurality of

- 1 vessels contact said stationary vessel agitator as said conveyor element
- 2 moves along said path.